Regency® ELECTRONICS INC.

SERVICE MANUAL

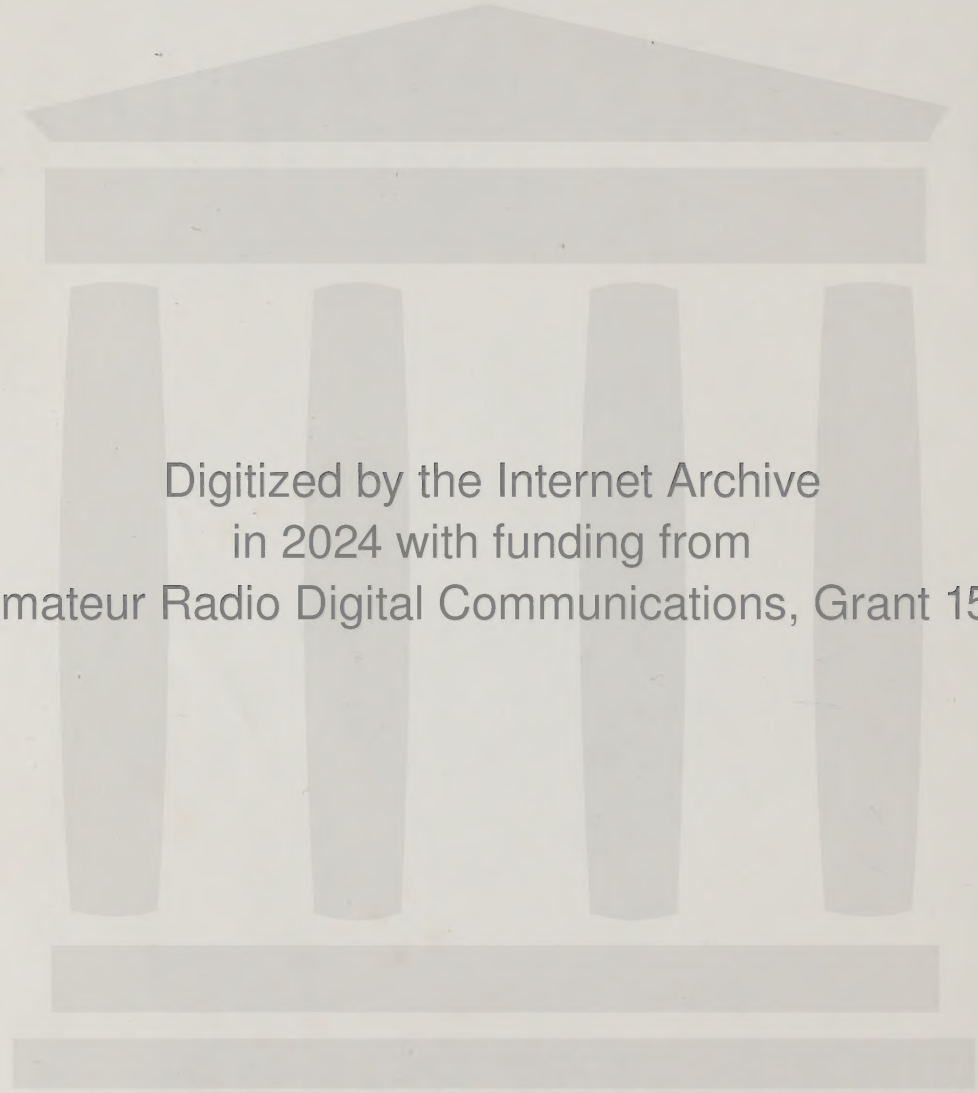
MODEL ACT-C4H/L/U
MONITORADIO RECEIVER

7707 RECORDS STREET
INDIANAPOLIS, INDIANA 46226

PRINTED IN U.S.A.

PRICE $5.00

SM-11-742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SECTION 1 GENERAL INFORMATION

1-1 DESCRIPTION

The ACT-C4 H/L/U is a fully programmable, 3 band 4 channel, crystal-controlled FM scanning monitor. It is a double conversion super-heterodyne receiver, used to receive signals in the public service communication bands. Police, fire, civil defense and radio telephones are a few of the services in these bands.

Slide type switches permit the listener to monitor any combination of channels, or all four if desired. Manual selection of channels is provided to permit monitoring any one channel.

Silicon transistors are used throughout. The use of integrated circuits results in compactness and reliability. A crystal filter in the first IF and a ceramic filter in the second IF insures good performance in areas where the frequencies of the various services are closely spaced.

The ACT-C4 H/L/U operates from 117 VAC, 60 Hz. No provision has been made for DC operation.

1-2 SPECIFICATIONS (Subject To Change Without Notice)

Frequency Range	(Low Band)	30-50 MHz
	(High Band)	148-174 MHz
	(UHF Band)	450-470 MHz
Frequency Separation	(VHF Low Band)	6 DB Bandwidth 30-50 MHz
	(VHF High Band)	6 DB Bandwidth 148-161 MHz
	(UHF Band)	10 DB Bandwidth 450-470 MHz
Sensitivity at Tune-Up	(VHF Low Band)	0.5 Microvolt for 20 DB Quieting
	(VHF High Band)	0.6 Microvolt for 20 DB Quieting
	(UHF Band)	0.7 Microvolt for 20 DB Quieting
Squelch Sensitivity (Threshold)	(VHF Low Band)	0.3 Microvolt
	(VHF High Band)	0.4 Microvolt
	(UHF Band)	0.5 Microvolt
Selectivity		6 DB @ ±7 KHz 50 DB @ ±16 KHz
Spurious Rejection (except Primary Image)		50 DB
Modulation Acceptance		±7 KHz
AFC Range (UHF Only)		Approx. 10 KHz (±5 KHz)
I.F. Frequencies		1st I.F.: 10.7 MHz (Crystal Filter) 2nd I.F.: 455 KHz (Ceramic Filter)

Scanning Rate..... Approx. 15 Channels per sec.

Audio Output (16 Ohm Speaker)..... 1/2 Watt @ 10%, or less, Distortion; 1 Watt Maximum

AFC Range (UHF Only)..... Approx. 10 KHz (±5 KHz)

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2nd I.F.: 455 KHz (Ceramic Filter)

Scanning Rate..... Approx. 15 Channels per sec.

Audio Output (16 Ω Speaker)..... 1/2 Watt @ 10%, or less, Distortion; 1 Watt Maximum

Power..... 105-130 VAC, 60 Hz @ 9 Watts Maximum

1-3 CRYSTAL INSTALLATION

A sliding door is provided to gain access to the crystal sockets and programming wires and pins. See illustration on page 6 for location of crystal sockets and program pins. The number shown between each pair of sockets corresponds to the channel number on the front panel.

1-4 CRYSTAL SPECIFICATIONS

Crystals are not normally supplied with the receiver. The crystals are usually obtained by the owner from the dealer where the radio was purchased. When ordering crystals from the recommended supplier (Shepherd Industries, Inc.), the ordering information should include the model number of the radio and the receive frequency.

The following information should be included when ordering crystals from a manufacturer who is not familiar with the specifications for the crystals used in Regency receivers.

High Band Crystal:

a. Crystal frequency = $\frac{\text{Channel frequency} - 10.7\ \text{MHz}}{3}$

b. Frequency Tolerance of .001%
c. 3rd Overtone
d. Series resonance minus 450 Hz
e. Maximum equivalent series resistance of 35 ohms
f. Drive Level of 2 MW
g. Holder: HC-25/U

Low Band Crystal:

a. Crystal frequency = Channel frequency +10.7 MHz

b. Frequency Tolerance of .001%
c. 3rd Overtone
d. Series resonance minus 450 Hz
e. Maximum equivalent series resistance of 35 ohms
f. Drive Level of 2 MW
g. Holder: HC-25/U

UHF Band Crystal (450-480 MHz):

a. Crystal frequency = $\frac{\text{Receive frequency -10.7 MHz}}{9}$

b. Frequency Tolerance of .001%
c. 3rd Overtone
d. Parallel resonance - 18 PF load capacity
e. Maximum equivalent series resistance of 35 ohms
f. Drive Level of 2 MW
g. Holder: HC-25/U

UHF Band Crystal (480-512 MHz):

a. Crystal frequency = $\frac{\text{Receive frequency -10.7 MHz}}{10}$

1-5 BAND PROGRAMMING

Programming consists of connecting all of the channels in each band together and connecting the group to the proper band program pin.

As each crystal is installed, the PROGRAM WIRE for that channel must be connected to the proper BAND PROGRAM PIN. This may be done either by connecting the program WIRE to the proper band PIN, or to the CHANNEL PROGRAM PIN of another channel that is or will be connected to the proper BAND PROGRAM PIN.

The programming may be simplified by using the following chart:

CHANNEL 1

a) Install crystal - note receive frequency on crystal.

b) Connect program wire to proper band pin.

CHANNEL 2

a) Install crystal - note frequency.

b) Connect program wire to:

1) Channel 1 program pin if in same band as Channel 1.

2) Proper band pin if not same band as Channel 1.

CHANNEL 3

a) Install crystal - note frequency

b) Connect program wire to:

1) Channel 2 program pin if in same band as Channel 2.

2) Proper band pin if not same band as Channel 2.

CHANNEL 4

a) Install crystal - note frequency.

b) Connect program wire:

1) Channel 3 program pin if in same band as Channel 3.

2) Proper band pin if not same band as Channel 3.

ANY UNUSED CHANNELS

a) Connect channel program wire to either:

1) Program pin of any channel programmed as above.

2) Any unused band pin.

1-6 CIRCUIT DESCRIPTION

Q101 and Q104 are the Low band RF amplifier and mixer. Q101 and Q104 are cut off until the scanner reaches a channel that has been programmed for low band. At that time the scanner circuit applies operating bias to both stages.

Q102 and Q105 are the High band RF amplifier and mixer. These two stages are turned on whenever the scanner is scanning a channel programmed high band.

Q103 and Q106 are the UHF RF amplifier and mixer. These two stages are turned on whenever the scanner scans a channel programmed UHF. In addition, when a channel programmed UHF is scanned, Q107 is turned on to provide the proper injection frequency for UHF operation.

Q108 is the crystal controlled oscillator. The fundamental frequency of the oscillator is coupled off the emitter of Q108 for low band injection. The oscillator frequency is multiplied by 3 and taken off of the collector of Q108 for high band injection. When operating on UHF, the third harmonic of the oscillator frequency at the collector of Q108 is multiplied by 3 by Q107. When operating on UHF, the injection frequency is 9 times the crystal frequency. An AFC voltage from the quadrature detector is applied to a varactor in the oscillator circuit when operating on UHF. During high band or low band operation, the AFC voltage is shorted out by diodes CR105 and CR106.

The 10.7 MHz IF output from any one of the mixers is fed through FLV101, a monolithic crystal filter, to Pin 16 of IC101. IC101 is a mixer circuit used to convert the 10.7 MHz IF to 455 KHz. Y105 is the crystal used to produce the 10.245 MHz injection signal.

The 455 KHz signal from Pin 3 of IC101 is fed through a narrow band ceramic filter, CF101. The output from CF101 is connected to Pin 5 of IC101. Between Pins 5 and 10 of IC101 are amplifiers, limiters and a quadrature detector circuit. The adjustable quadrature coil is connected between Pins 8 and 4 of IC101. The AFC voltage used on UHF appears at Pin 9 of IC101.

The audio output from Pin 10 of IC101 is fed through the squelch control to Pin 11 of IC101. The part values in the circuit are chosen to limit the response to approximately 5 to 15 KHz. The "noise" occuring in this area is amplified and appears at Pin 12 of IC101. From Pin 12 of IC101, the noise signal is applied to a detector, CR111. The positive output of the detector is applied to Pin 13 of IC101. Between Pin 13 and 14 of IC101 is an inverting switch. Positive voltage at the output of the detector causes the voltage at Pin 14 to go low (near ground), because of the inversion. This low voltage results in operating bias being applied to Q109. Conduction of Q109 applies high voltage (near supply) to Pin 8 of IC105. High voltage at Pin 8 of IC105 causes the audio amplifier to be turned off. The receiver is squelched. When a signal is received, the "noise" is reduced. The resulting low voltage at Pin 13 of IC101 causes high voltage at Pin 14. Operating bias is removed from Q109. The high voltage at Pin 8 of IC105 is removed and the audio amplifier is permitted to operate normally. The signal used to turn Q109 off is also applied through CR114 to Pin 6 of IC102 to stop the scanner.

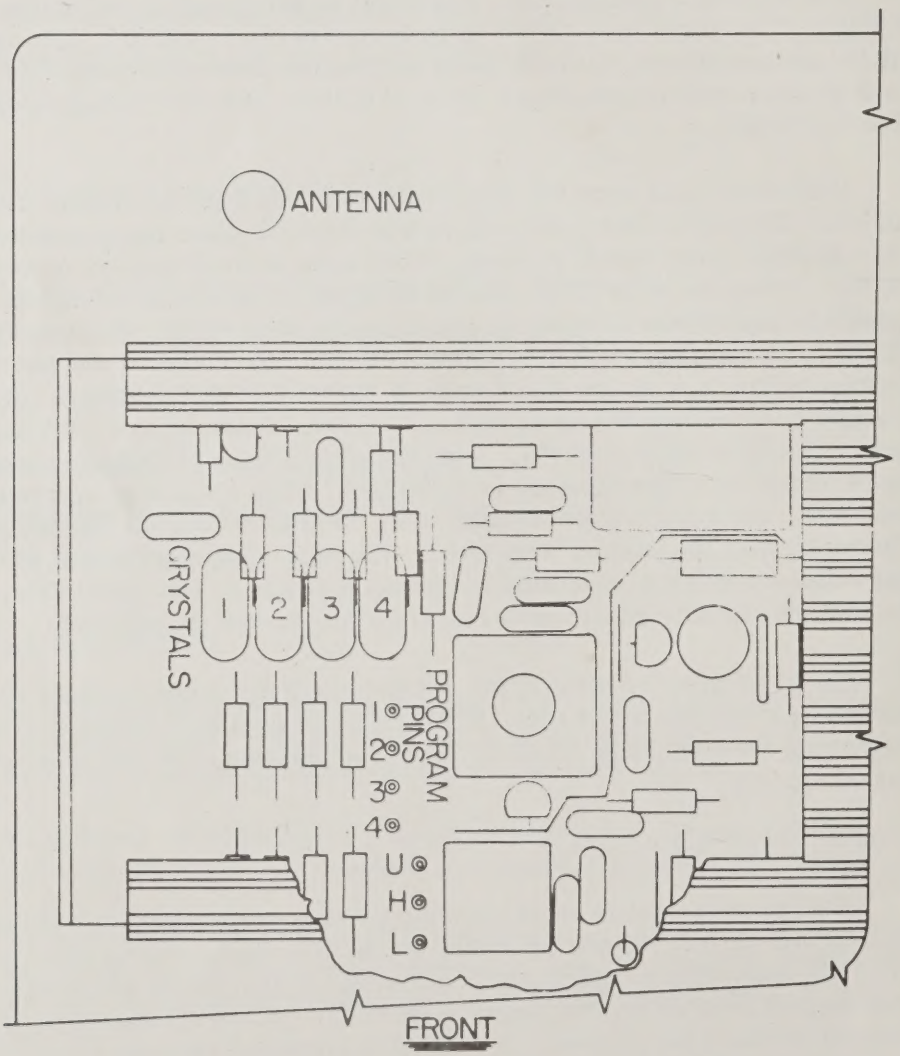
The audio from Pin 10 of IC101 is fed through the volume control to the input of the audio amplifier, Pin 2 of IC105. IC105 contains amplifiers and output stages capable of delivering approximately 1 watt to the 16 ohm speaker. No provision is made for external speaker.

1-7 SCANNER OPERATION

IC102 is connected as an oscillator operating at approximately 15 Hz. Pulses from Pins 10 and 11 of IC102 are fed to Pin 1 of IC103. Each time a pulse appears at Pin 1 of IC103, the output signal moves one position to provide the scanning action. The four outputs from IC103 are connected to IC104. IC104 contains four switches used to turn the channels on in order. A channel is turned on when the output of IC104 connected to that channel goes low (near ground). The ground is applied to the program

diode (CR 101 through CR 104) connected to that channel. The diode conducts and turns on the RF and mixer circuit connected to the channel by the program wire. The ground from IC 104 is applied through the channel switch to the lamp for the channel. At the same time, forward bias is applied to the diode associated with the channel (CR 107 through CR 110) and the crystal installed in the channel is connected to the oscillator circuit.

The scan/manual switch applies positive voltage to Pin 6 of IC 102. When positive voltage is applied to Pin 6, the oscillator stops and scanning ceases. When the step switch is pushed, the oscillator completes one cycle and stops. The resulting pulse is fed to IC 103 which causes the scanner to move over one channel each time the step switch is pushed.



CRYSTAL LOCATION DIAGRAM

SECTION 2 ALIGNMENT

2-1 EQUIPMENT REQUIRED

FM Signal Generator
AC Voltmeter capable of measuring 455 KHz

NOTE: During all steps of alignment, the squelch control should be in the maximum clockwise position (minimum squelch action).

All receivers should be aligned to the channel nearest the center of the range over which they will operate in each band.

2-2 IF ALIGNMENT

Connect the AC voltmeter across the speaker terminals.

With no input to the receiver, adjust the volume control until the meter reads 300 millivolts.

Adjust L119 for maximum meter reading. L119 has two peaks, use the one with the slug in the lower part of the coil form. Adjust the volume control to maintain 300 millivolt reading.

Program the channel to be used for alignment to UHF and install the crystal.

Set the signal generator's frequency to the center frequency of the selected channel.

If possible, use an external 10.7 MHz or 455 KHz signal to zero beat the generator frequency to assure proper setting of the generator.

Remove the AC voltmeter from the speaker terminals and connect it to Pin 5 of IC101. Set the voltmeter to 30 millivolt range.

Adjust generator output to obtain a mid-scale reading on the meter.

Adjust L110 for maximum reading.

Remove meter from Pin 5 of IC101.

Connect DC voltmeter to Pin 9 of IC101.

Set generator output to zero.

Adjust L119 for reading of 3.8 volts on meter.

2-3 UHF ALIGNMENT

Connect AC voltmeter across speaker terminals.

With no input to the receiver, adjust volume control for reading of 1.0 volts of noise.

Set the signal generator to the center of the channel being used for alignment.

Adjust generator output until reading on meter drops to 0.2 volts.

Adjust L112 for maximum quieting (lowest meter reading).

Adjust C116, C117 and C126 (in that order) for maximum quieting (lowest meter reading). Adjust signal generator output to maintain 0.2 volt reading on meter. Repeat adjustments until no further improvement can be made.

2-4 LOW BAND ALIGNMENT

Program the channel to be used for alignment to low band and install a crystal near 39 MHz.

Set the cores in L103 and L106 two full turns into the form from flush with the top end of the coil forms.

No further adjustment of the low band portion should be required.

Check the sensitivity of the receiver at the tune up frequency.

2-5 HIGH BAND ALIGNMENT

Program the channel to be used for alignment to high band and install the crystal to be used.

Connect AC voltmeter to Pin 5 of IC101. Set meter to 30 millivolt scale.

Connect the signal generator output to the antenna mounting screw and ground.

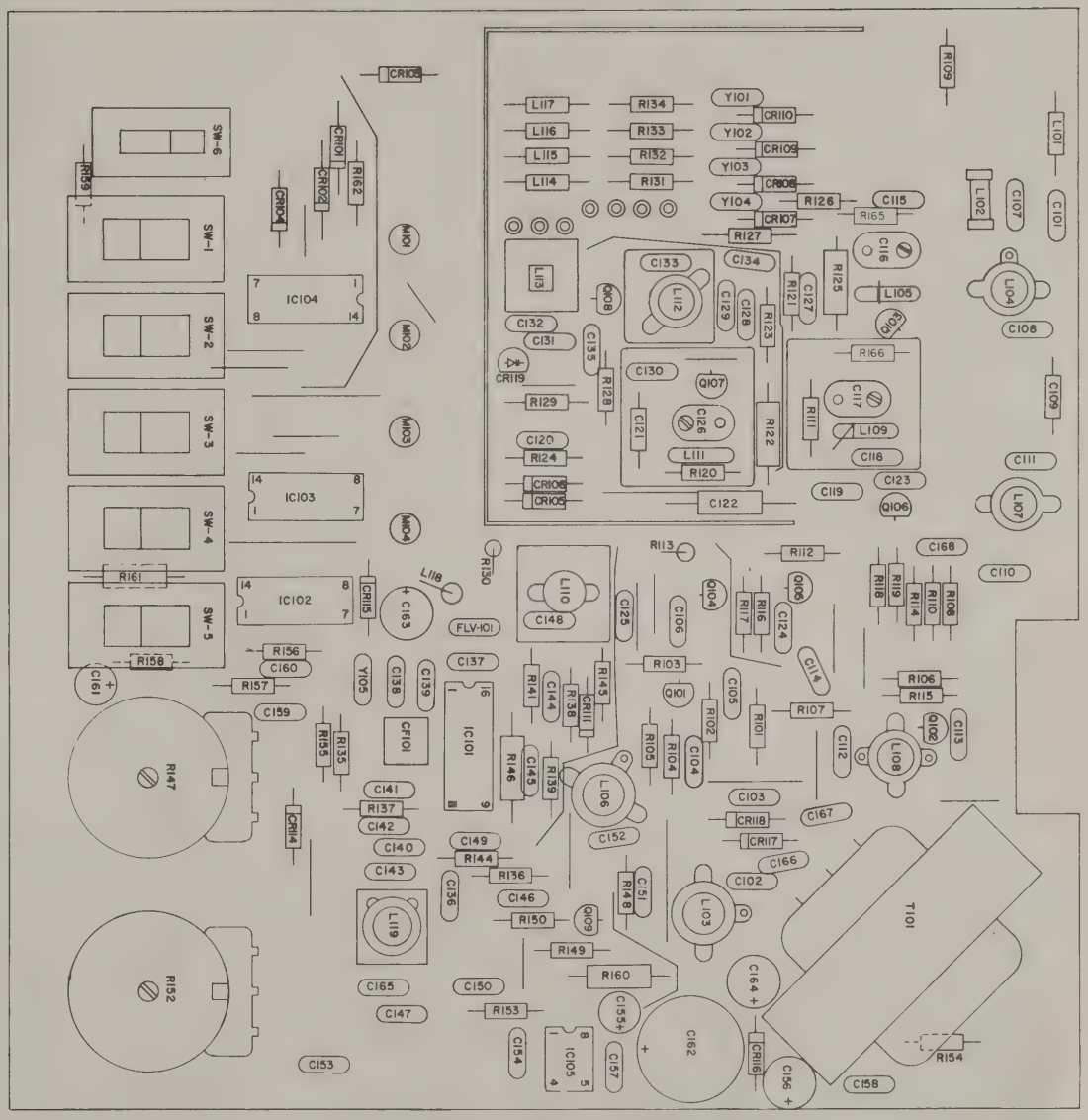
Set the generator frequency to the channel being used for alignment.

Adjust signal generator output to obtain a mid-scale reading on the voltmeter.

Adjust L107, L104, L108 and L112 (in that order) for maximum AC voltmeter reading. Adjust signal generator output to maintain mid-scale reading on voltmeter.

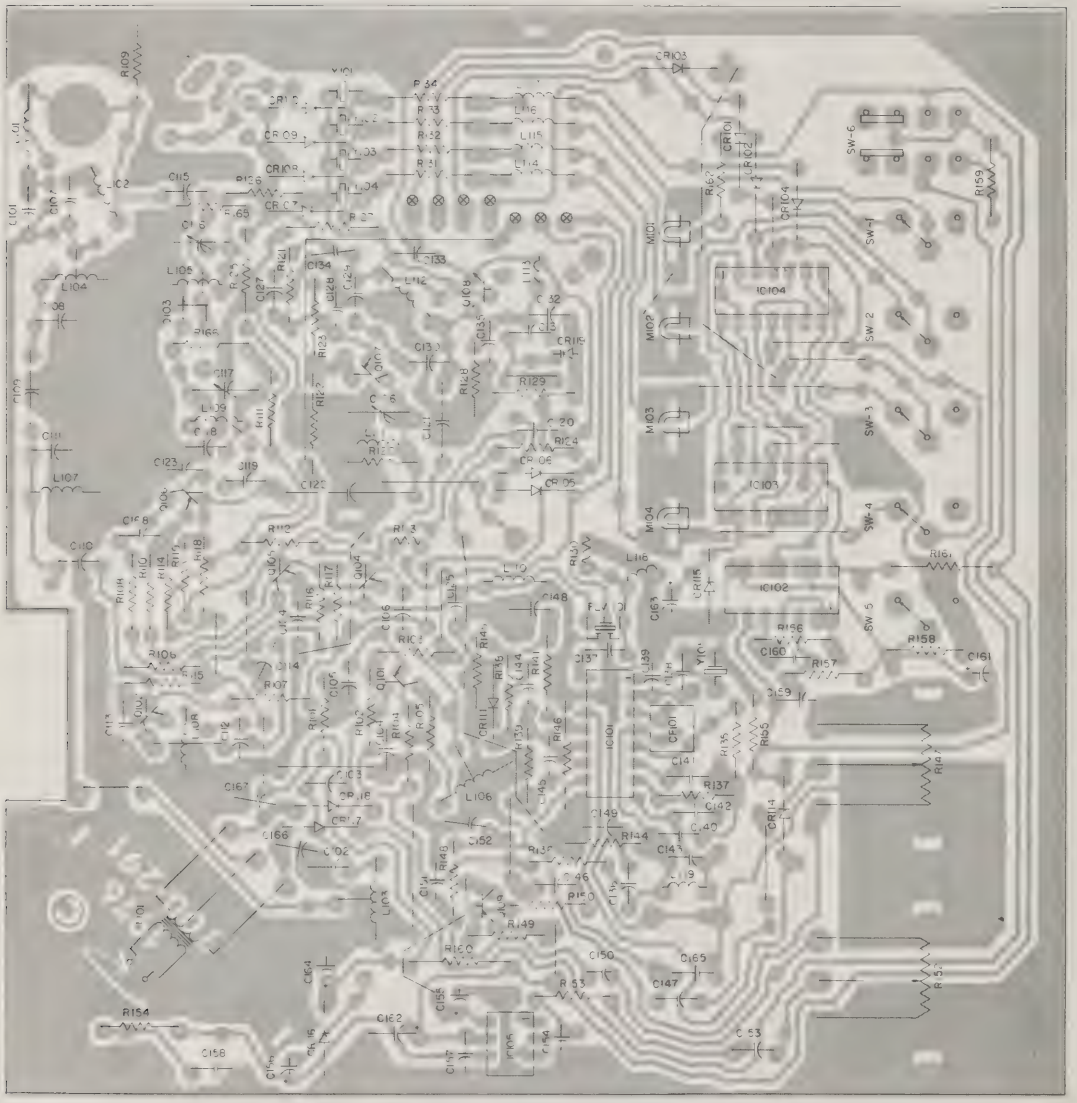
If L112 requires more than one turn of adjustment, recheck UHF Alignment.

RECEIVER BOARD 700-291



3-1 RECEIVER BOARD PARTS PLACEMENT DIAGRAM

RECEIVER BOARD 700-291



3-2 RECEIVER BOARD PARTS OVERLAY DIAGRAM

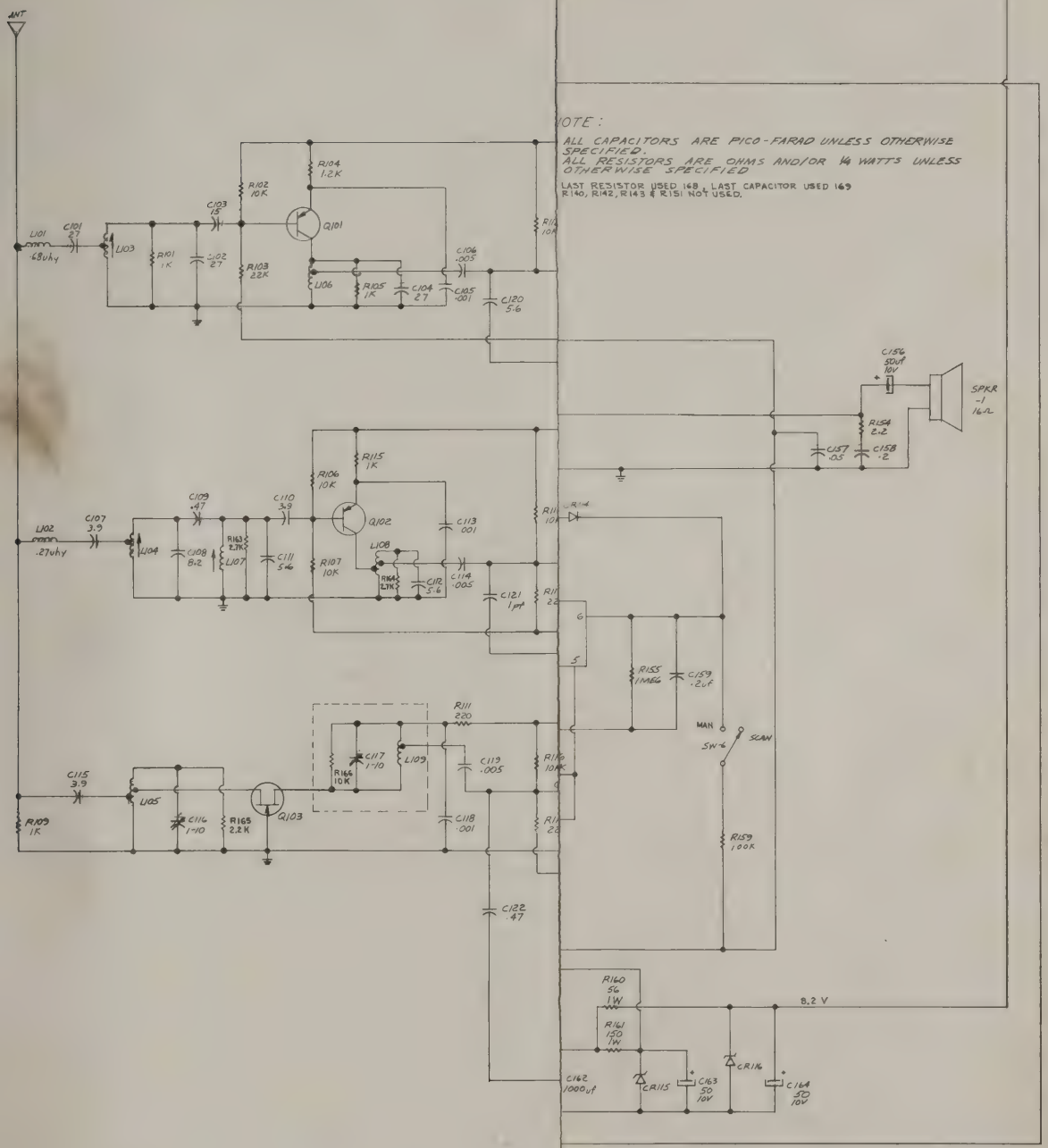
3-3 VOLTAGE DATA

All voltages are nominal taken
with VTVM
No signal applied
Scan-Manual switch set to Manual, Channel 1 selected

	E (Source)	B (Gate)	C (Drain)	
Q101	6.7	6.0	0	Low Band
Q102	5.5	4.8	0	High Band
Q103	0	0	6.0	UHF Band
Q104	8.3	6.7	0	
Q105	8.3	6.7	0	
Q106	6.7	6.0	0	
Q107	7.3	6.8	0	
Q108	3.4	4.5	7.3	
Q109	12.3	11.8	12.9	Squelched
	12.3	12.2	6.3	Unsquelched

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC-101	7.7	7.0	7.3	7.7	1.0	1.0	1.0	7.8	2.5	4.0	2.0	2.0	0	6.2		2.0
IC-102	0	0	5.0	0	3.5	5.8	0	5.0	5.0	0	0	5.0	5.0	5.0		
IC-103	0	5.0	5.0	5.0	0	5.0	5.0	4.0	0	5.0	0	0	4.0	5.0		
IC-104	0	4.0	11.0	0.4	4.0	4.0	0	4.0	0	7.3	11	0	0	5.0		
IC-105	0	0	0	0	0	6.0	12.2	6.0								

Gnd of.
12 = of.



3-4 SCHEMATIC

NOTE:

1. ALL CAPACITORS ARE PICO-FARAD UNLESS OTHERWISE SPECIFIED.
   ALL RESISTORS ARE OHMS AND/OR ¼ WATTS UNLESS OTHERWISE SPECIFIED
2. LAST RESISTOR USED 168, LAST CAPACITOR USED 169
   R140, R142, R143 & R151 NOT USED.

3-4 SCHEMATIC

SECTION 4 PARTS LIST

4-1 RECEIVER BOARD

Item No.	Description	Part No.
	RESISTORS	
R101	1K, ¼W 10%	4701-0102-042
R102	10K, ¼W 10%	4701-0103-042
R103	22K, ¼W 10%	4701-0223-042
R104	1.2K, ¼W 10%	4701-0122-042
R105	1K, ¼W 10%	4701-0102-042
R106	10K, ¼W 10%	4701-0103-042
R107	10K, ¼W 10%	4701-0103-042
*R108	100 Ω, ¼W 10%	4701-0101-042
R109	1K, ¼W 10%	4701-0102-042
*R110	100 Ω, ¼W 10%	4701-0101-042
*R111	220 Ω, ¼W 10%	4701-0221-042
R112	10K, ¼W 10%	4701-0103-042
R113	22K, ¼W 10%	4701-0223-042
R114	1K, ¼W 10%	4701-0102-042
R115	11K, ¼W 10%	4701-0102-042
R116	10K, ¼W 10%	4701-0103-042
R117	22K, ¼W 10%	4701-0223-042
R118	10K, ¼W 10%	4701-0103-042
R119	22K, ¼W 10%	4701-0223-042
R120	1.5K, ¼W 10%	4701-0152-042
R121	1K, ¼W 10%	4701-0102-042
R122	82K, ¼W 10%	4701-0823-042
R123	4.7K, ¼W 10%	4701-0472-042
R124	39K, ¼W 10%	4701-0393-042
*R125	68 Ω, ¼W 10%	4701-0680-042
R126	10K, ¼W 10%	4701-0103-042
R127	39K, ¼W 10%	4701-0393-042
R128	470 ¼W 10%	4701-0471-042
R129	39K, ¼W 10%	4701-0393-042
R130	10K, ¼W 10%	4701-0103-042
R131	1.2K, ¼W 10%	4701-0122-042
R132	1.2K, ¼W 10%	4701-0122-042
R133	1.2K, ¼W 10%	4701-0122-042
R134	1.2K, ¼W 10%	4701-0122-042
R135	1.8K, ¼W 10%	4702-0182-042
*R136	180 Ω, ¼W 10%	4702-0181-042
R137	47K, ¼W 10%	4702-0473-042
R138	10K, ¼W 10%	4702-0103-042
R139	1 Meg	4702-0105-042
R141	10K, ¼W 10%	4702-0103-042
R144	1 Meg	4702-0105-042
R145	1 Meg	4702-0105-042
R146	1 Meg	4702-0105-042
R147	100K, Variable (Squelch)	4750-3231-704
R148	100K, ¼W 10%	4702-0104-042
R149	1K, ¼W 10%	4702-0102-042
R150	15K, ¼W 10%	4702-0153-042
R152	100K, Variable (Volume)	4750-3231-703
R153	47K, ¼W 10%	4701-0473-042
*R154	2.2 Ω, ¼W 10%	4701-0229-042
R155	1 Meg	4701-0105-042
R156	560K, ¼W 10%	4701-0564-042
R157	10K, ¼W 10%	4701-0103-042
R158	1 Meg	4701-0105-042
R159	100K, ¼W 10%	4701-0104-042
R160	56 Ω, 1W	4711-0560-049
R161	150 Ω, 1W	4711-0151-049
*R162	15 Ω, ¼W 10%	4701-0150-042
R163	2.7K, ¼W 10%	4701-0272-042
R164	2.7K, ¼W 10%	4701-0272-042
R165	2.2K, ¼W 10%	4701-0222-042
R166	10K, ¼W 10%	4701-0103-042
R167	2.2K, ¼W 10%	4701-0222-042
R168	39K, ¼W 10%	4701-0393-042
	CAPACITORS	
C101	27pf, 10% NPO	1500-0270-650
C102	27pf, 10% NPO	1500-0270-650
C103	15pf, 10% NPO	1500-0150-650
C104	27pf, 10% NPO	1500-0270-650
C105	.001mf, Disc	1503-0102-003
C106	.005mf, Disc	1503-0502-005
C107	3.9pf, 10% NPO	1500-0399-905
C108	8.2pf, 10% NPO	1500-0829-905
C109	.47pf,	1510-0478-900
C110	3.9pf, 10% NPO	1500-0399-905
C111	5.6pf, 10% NPO	1500-0569-905
C112	5.6pf, 10% NPO	1500-0569-905
C113	.001mf, Disc	1503-0102-003
C114	.005mf, Disc	1503-0502-005
C115	3.9pf, 10% NPO	1500-0399-905
C116	Trimmer 1-10pf	1517-0000-015
C117	Trimmer 1-10pf	1517-0000-015
*C118	.001/mf, Disc	1503-0102-003
C119	.005mf, Disc	1503-0502-005
C120	5.6pf, 10% NPO	1500-0569-905
C121	1.0pf,	1510-0010-900
C122	.47pf,	1510-0478-900
C123	.005mf, Disc	1503-0502-005
C124	.005mf, Disc	1503-0502-005
C125	390pf, 5%	1506-0391-550
C126	Trimmer 1-10pf	1517-0000-015
C127	150pf, 5%	1506-0151-550
C128	.001mf, Disc	1503-0102-003
C129	27pf, 10% NPO	1500-0270-650
C130	27pf, 10% NPO	1500-0270-650
*C131	.001mf, Disc	1503-0102-003
*C132	.001mf, Disc	1503-0102-003
C133	82pf, 5% NPO	1524-0820-002
*C134	.001mf, Disc	1503-0102-003
*C135	.001mf, Disc	1503-0102-003
C136	0.2mf, 12v	1502-0103-007
*C137	.001mf, Disc	1503-0102-003
C138	150pf, 5%	1506-0151-550
C139	68pf, 5% NPO	1524-0680-002
C140	.05mf, Disc	1502-0503-004
C141	0.1mf, 12v	1502-0104-005
C142	10pf, 10% NPO	1500-0100-905
C143	82pf, 5% NPO	1524-0820-002
C144	.002mf, Disc	1523-0202-002
C145	3.9pf, 10% NPO	1500-0399-905
C146	150pf, 5%	1506-0151-550

Item No.	Description	Part No.
C147	150pf, 5%	1506-0151-550
C148	0.2pf, 12v	1502-0204-006
C149	0.2pf, 12v	1502-0204-006
C150	.0047mf, Mylar	1508-0472-610
C151	.001mf, Disc	1503-0102-003
C152	150pf,, 5%, 50v	1506-0151-550
*C153	.01mf, Disc	1503-0103-007
*C154	.0033mf, Mylar 100V	1508-0332-610
C155	5.0mf, 10v	1513-0050-001
C156	50mf, 16v	1513-0500-002
C157	.05mf, 25v	1502-0503-004
C158	0.2mf, 12v	1502-0204-006
C159	0.2mf, 12v	1502-0204-006
C160	0.1mf, 12v	1502-0104-005
C161	1.0mf, 50v	1513-0010-004
C162	1000mf, 16v	1513-0102-002
C163	50mf, 10v	1513-0500-001
C164	50mf, 10v	1513-0500-001
C165	390pf, 5%	1506-0391-550
C166	.001mf, Disc	1503-0102-003
C167	.001mf, Disc	1503-0102-003
C168	8.2pf, 10% NPO	1500-0829-905
C169	.001mf, Disc	1503-0102-003

COILS

L101	.68 μhy	1802-0688-003
L102	.27 μhy	1803-5125-903
L103	Low Band, Ant	1800-5127-401
L104	High Band, Ant	1800-3152-001
L105	UHF Ant	1800-3160-001
L106	Low Band RF	1800-5127-401
L107	High Band, Ant Sec.	1800-3152-002
L108	High Band RF	1800-3152-003
L109	UHF RF	1800-3160-006
L110	10.7 MHz IF	1800-3191-401
L111	UHF Tripler	1800-3160-003
L112	Osc. Collector	1800-3152-009
L113	Osc. Emmiter	1801-1236-900
L114	Choke, 6.8 μhy	1802-0689-003
L115	Choke, 6.8 μhy	1802-0689-003
L116	Choke, 6.8 μhy	1802-0689-003
L117	Choke, 6.8 μhy	1802-0689-003
L118	Choke, 39 μhy	1803-3268-201
L119	Quadrature	1800-3218-800

TRANSISTORS

Q101	PNP	4801-0000-026
Q102	PNP	4801-0000-026
Q103	FET	4811-0000-015
Q104	PNP	4801-0000-026
Q105	PNP	4801-0000-026
Q106	PNP	4801-0000-026
Q107	PNP	4801-0000-026
Q108	NPN	4801-0000-100
Q109	PNP (White Top)	4801-0000-060

Item No.	Description	Part No.

INTEGRATED CIRCUITS

IC101	IF — ECG-853?	3130-5127-100
IC102	Scan Osc.	3130-3157-627
IC103	Scan Gen.	3130-3157-627
IC104	Channel Driver	3130-3157-619
IC105	Audio	3130-3167-905

DIODES

CR101	Silicon	4805-1241-200
CR102	Silicon	4805-1241-200
CR103	Silicon	4805-1241-200
CR104	Silicon	4805-1241-200
CR105	Silicon	4805-1241-200
CR106	Silicon	4805-1241-200
CR107	Germanium	4807-1233-900
CR108	Germanium	4807-1233-900
CR109	Germanium	4807-1233-900
CR110	Germanium	4807-1233-900
CR111	Silicon	4805-1241-200
CR114	Silicon	4805-1241-200
CR115	Zener 5.1V	4808-0000-017
CR116	Zener 8.2V	4808-0000-009
CR117	Silicon Rect	4806-0000-004
CR118	Silicon Rect	4806-0000-004
CR119	Varicap	4809-0000-001

I.C.4 = SN15858N

IC 10[illegible] SN15855 = ECG 9158

IC (0[illegible] N7473A = ECG-7473

I<2 = MC14001CP = ECG 4001B

IC 5 = LM380N-8

-123A
= ECG-159

4-2 CHASSIS ASSEMBLY

Item No.	Description	Part No.
	MISCELLANEOUS ELECTRICAL PARTS	
SPK-1	2 ¼ inch, round, 16 Ohm	1301-3213-402
M101	Lamp, 14.4V, 80 Ma, #73	3901-0000-007
M102	Lamp, 14.4V, 80 Ma, #73	3901-0000-007
M103	Lamp, 14.4V, 80 Ma, #73	3901-0000-007
M104	Lamp, 14.4V, 80 Ma, #73	3901-0000-007
T101	Transformer Power	5604-5109-900
FLV-101	Filter, Crystal, 10.7 MHz	2705-3232-200
CF-101	Filter, Cermanic, 455 KHz	2700-3209-500
Y-105	Crystal, 10.245 MHz	2301-3151-601
SW-101	Channel SW	5113-3231-601
SW-102	Channel SW	5113-3231-601
SW-103	Channel SW	5113-3231-601
SW-104	Channel SW	5113-3231-601
SW-105	Step SW	5113-3231-501
SW-106	On-Scan-Man	5113-3221-103
Cord	AC	6041-3215-900
Ant.	Telescoping	1201-5108-801
	MECHANICAL PARTS	
	Knob, Controls	2402-6039-604
	Knob, Channel SW & Step	2402-6039-706
	Knob, Off-Scan-Man.	2402-6039-803
	Foot, Ruber	1402-3231-901
	Case, Top	1411-7014-103
	Case, Bot	1411-7014-003